Detailed Methodology for the 2001 Washington Medicaid CAHPS Survey Results

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for
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Washington Medicaid CAHPS, 2001

In 2001, the Medical Assistance Administration (MAA) of the Washington State Department of Social and Health Services contracted with PRO-West to conduct the Consumer Assessment of Health Plans (CAHPS) survey across various programs. The goals of the project were to measure members' experiences and provide timely and useful information to all stakeholders. Prospective members received summary results in their enrollment materials to assist them in choosing their health plan, while health plans and other organizations received feedback regarding member experiences through the annual CAHPS stakeholder report, "2001 Washington State Medicaid Client Satisfaction Survey Results".

Study Populations
For the 2001 CAHPS study, seven Medicaid populations were targeted:

- Healthy Options - Adults (among seven health plans)
- Healthy Options - Children (among seven health plans)
- Basic Health Plan Plus for children (among two health plans)
- Children's Health Insurance Program (CHIP)
- Title V or Children with Special Health Care Needs (CSHCN)
- Pregnant Women in Medicaid Managed Care
- Pregnant Women in Medicaid Fee-for-Service Care

Sampling
Sample selection for the CAHPS study involves two main processes: 1) selecting enrollment files based on particular eligibility criteria, and 2) selecting a random sample of clients from the eligible enrollment data.

Eligibility Criteria
Age, continuous enrollment, primary language spoken by the enrollee, and residence in the state of Washington were the main criteria used by MAA in determining eligibility for each study population. Each population contained either adult or child enrollees.

Adults
Eligible adults were defined as members 18 years of age or older who were continuously enrolled in a participating plan from September 1, 2000 through February 28, 2001, resided in the state of Washington, and spoke either English or Spanish as their primary language. Up to a one-month break in enrollment period was allowed.

Children
Eligible children were defined as members 13 years of age or younger who were continuously enrolled in a participating plan from September 1, 2000 through February 28, 2001, resided in the state of Washington, and spoke either English or Spanish as their primary language. Up to a one-month break in enrollment period was allowed.

Survey responses were used to further validate or refine the respondents' age and enrollment status.

Random Sampling
Random samples were drawn for the seven Medicaid populations according to the following plan:

STUDY POPULATION	SAMPLE SIZE PER POPULATION	TOTAL SAMPLE SIZE
Healthy Options - Adults (among seven health plans)	1,050 / plan*	7,151
Healthy Options - Children (among seven health plans)	1,050 / plan	7,350
Basic Health Plan Plus for children (among two health plans)	1,050 / plan	2,100
Children's Health Insurance Program (CHIP)	577 statewide	577
Title V or Children with Special Health Care Needs (CSHCN)	611 statewide	611
Pregnant Women in Medicaid Managed Care	1,436 statewide	1,436
Pregnant Women in Medicaid Fee-for-Service Care	1,415 statewide	1,415
	Total Sample Size	**20,640**

*One plan limited to 851 adults

Sampling Methodology

Random samples were selected from eligible enrollment files provided by MAA.

Healthy Options
From enrollment files of eligible Medicaid clients, a random sample of 1,050 adults or children per health plan was selected from each of seven managed care plans participating in Healthy Options during 2001. One health plan was limited to 851 clients for the adult population. In addition to the children in Healthy Options, 1,050 children from two additional plans participating in Basic Health Plan Plus (BHP+) were sampled. Results for plans participating in Healthy Options are summarized in the 2001 stakeholder report, "2001 Washington State Medicaid Client Satisfaction Survey Results".

Statewide Programs
Statewide Medicaid programs included in the 2001 CAHPS are: Pregnant Women in Managed Care plans, Pregnant Women in Fee-for-Service plans, Children's Health Insurance Program (CHIP), and Children with Special Health Care Needs (CSHCN).

Pregnant Women in Managed Care
A random sample of 1,050 women identified as pregnant between September 1, 2000 and February 28, 2001, had a primary language of English or Spanish, and met the same age, residency, and continuous enrollment criteria as that of Healthy Options was selected from MAA enrollment data. Among pregnant women, of particular interest were the experiences of African American and Native American women. In addition to the random sample of 1,050 pregnant women, an over-sample was drawn for Native American and African American groups among both the managed care and fee-for-service programs. It was also assumed that a percentage of the women enrolled in Healthy Options may have been pregnant within the past six months and therefore screener questions were added to the Healthy Options adult questionnaire to identify additional pregnant women.

Pregnancy Fee-for-Service
Women enrolled in fee-for-service whose primary language was English and who met the same eligibility criteria as pregnant women in managed care were identified using MAA enrollment data. A Spanish survey instrument for the women enrolled in fee-for-service was not available at the time the survey was conducted.

Children's Health Insurance Program (CHIP)
The Children's Health Insurance Program was implemented in the state of Washington on February 17, 2000. Since CHIP was newly implemented, the sample size was limited and all of the children meeting the eligibility criteria were selected. The final sample size for CHIP was 577 children.

Children with Special Health Care Needs
A sample of 611 children enrolled in the Medicaid Title V program was drawn as a representation of the Children with Special Health Care Needs (CSHCN) population. Children receiving Title V benefits who met the Medicaid eligibility criteria for age, continuous enrollment, residency, and language were included in the CSHCN sample. In addition, it was assumed that a percentage of the children enrolled in Healthy Options would have special health care needs, and therefore screener questions were added to the Healthy Options child survey to identify those children who may have special needs. Because all parents with children in Healthy Options were asked these questions, some children were included in both of the Healthy Options and CSHCN survey results. The survey results for these two groups are not mutually exclusive.

Survey-Based Screening Criteria to Identify Children with Special Health Care Needs:
As previously described, children enrolled in the Title V program were assigned to the Children with Special Health Care Needs population. In addition to the children enrolled in Title V, additional children with potential special health care needs were identified through a survey-based screening tool. The tool consisted of a series of five questions used to screen for children with special health care needs. A detailed algorithm was applied to responses for these screener questions to identify children with special health care needs. The HEDIS CAHPS methodology used to determine

whether a child has a special health care need was developed and tested in the Child and Adolescent Health Measurement Initiative (CAHMI) / Children with Special Health Care Needs program. The criteria has been extensively tested and reviewed by experts in the field and meets the established Maternal and Child Health Bureau's definition of children with special health care needs.

These five screening questions asked whether a child currently experiences a specific health consequence or issue related to:

- the use or need of prescription medications;
- above average use or need of medical, mental health, or educational services;
- use or need of specialized speech, occupational, or physical therapies;
- treatment or counseling for emotional, behavioral, or developmental problems; or
- functional limitations compared with others of the same age.

The algorithm or criteria used to determine the need for special care was based on positive responses from particular survey questions. At least one of the health consequences listed above had to result from a medical or other health condition lasting, or expected to last, 12 months or longer.

Studies have found that between 16% and 22% of Medicaid and commercial health plans have children enrolled with special health care needs (Bethell and Read, 2000). For CAHPS 2001, based on these screening questions, 20.3% of the complete and eligible respondents (n = 3,882) from seven Healthy Options plans and two Basic Health Plan Plus (BHP+) plans met the CSHCN criteria. Among the Title V sample respondents, 47.9% (n=240) of children met the screener criteria as CSHCN, while 14.5% (n=325) of the CHIP respondents met the CSHCN criteria.

The Survey Instruments

All survey instruments included the core CAHPS 2.0H questions plus supplemental questions of special interest to the Medical Assistance Administration (MAA). Survey administration, data collection, and data analysis followed the National Committee for Quality Assurance (NCQA) and HEDIS protocols.

Surveys were administered to Medicaid clients in Washington State for several programs: Healthy Options adults and children from seven health plans, Basic Health Plan Plus for children in two plans, Pregnant Women in Managed Care and Fee-for-Service programs, Children's Health Insurance Program, and Title V (referred to as Children with Special Health Care Needs). Four different surveys were developed for particular populations, as depicted below:

Seven Populations Surveyed	Four Survey Types
Adults in Healthy Options	Adult MCO
Pregnant Women in Managed Care	
Pregnant Women in Fee-for-Service	Pregnancy FFS
Children in Healthy Options	Child MCO
Children in Basic Health Plan Plus	
Children in Title V (CSHCN)	
Children in Children's Health Insurance Program	CHIP

The surveys consisted of the core CAHPS questions, plus supplemental questions of MAA interest. The core CAHPS questions covered the following domains of health care:

- Getting care that is needed
- Getting care without long waits
- How well doctors communicate
- Courtesy, respect, and helpfulness of staff
- Health plan customer service and paperwork
- Family-centered care (new in year 2001)
- Global ratings of personal doctors, specialists, health care, and health plan

The 2001 children's surveys also included screener questions to identify children with special health care needs (CSHCN). Similarly, two questions were used in the adult surveys to identify women who were pregnant or had been pregnant within the past six months.

Topics related to children with special health care needs included:

- Getting prescription medications
- Getting specialized services
- Getting family support
- Coordination of care

Finally, to describe the respondents and provide information for case-mix adjustment, the questionnaire included questions about utilization of services, health status, and demographics.

The survey instrument was available in both English and Spanish for clients enrolled in Healthy Options and CHIP. Previous years showed increased response rates among Spanish speakers who received an English and a Spanish survey, and therefore both English and Spanish instruments were sent to Spanish speakers included in the sample.

Survey Administration

The CAHPS survey administration included five phases: pre-notification postcards, 1st survey and cover letter, follow-up postcards, 2nd survey and cover letter to non-respondents, follow-up postcards to non-respondents, and computer assisted telephone interviews. Surveys were administered between June 1, 2001 and August 24, 2001. All mailings were sent by first class postage. All cover letters, reminder postcards, and surveys contained a toll-free telephone number for member questions. Clients with a primary language code of Spanish were sent all materials in both English and Spanish.

Telephone interviews were attempted for those members not responding to both mail surveys. A minimum of six calls was made per respondent over a five-week period. The overall targeted response rate for each sample was 50%. Actual response rates are displayed in the "Disposition" section that follows.

At each mailing, information obtained from toll-free callers was used to adjust or update mailing lists. For example, some clients wanted to be mailed additional information, some wanted the survey in another language, and others requested another survey to replace a misplaced survey.

The table below describes all stages of survey implementation. Among the managed care and statewide plans, 37,458 paper surveys were distributed.

Survey Administration	Dates
Pre-notification postcards sent to prospective respondents	June 1, 2001
First survey mailing to prospective respondents	June 4, 2001
Initial Reminder postcard mailing to prospective respondents	June 11, 2001
Second survey mailing to non-respondents from the mailed survey	July 2, 2001
Second Reminder postcard mailing to non-respondents	July 9, 2001
Phone follow-up conducted with non-respondents to mailed survey (6 attempted phone calls)	July 23 - August 24, 2001

Disposition

The table below shows the final sample dispositions or outcomes for each population surveyed and respective response rates. In order to fairly depict response activity, response rates were adjusted by removing those individuals who were not eligible to be surveyed (e.g. deceased, language barrier, invalid address) from the total surveyed. Of the 20,640 total sampled, 2,687 enrollees across all populations (13.0%) were found to be ineligible. For the 2001 CAHPS survey, the overall adjusted response rate across all populations when ineligible clients were excluded was 41.6%. Across seven plans participating in Healthy Options, the adjusted response rates were 37.9% and 42.1% for adults and children respectively. The adjusted response rate for children across nine plans (7 Healthy Options and 2 Basic Health Plan Plus) was 45.0%.

Disposition of Populations Surveyed, CAHPS 2001

CAHPS 2001	7 Adult Healthy Options Plans	9 Child Healthy Options Plans	Pregnancy Managed Care	Pregnancy Fee-For-Service	CHIP	Title V (CSHCN)
Original Sample	7,151	9,450	1,436	1,415	577	611
Ineligible*	1,080 (15.1%)	818 (8.7%)	293 (20.4%)	348 (24.6%)	47 (8.1%)	101 (16.5%)
Total Eligible Respondents	6,071 (84.9%)	8,632 (91.3%)	1,143 (79.6%)	1,067 (75.4%)	530 (91.9%)	510 (83.5%)
Cumulative # of Completed Surveys:						
1st mailing	1,193	1,905	228	145	214	137
1st & 2nd mail	1,808	2,991	345	246	280	195
1st & 2nd mail and phone	2,300	3,882	413	312	325	240
Adjusted Response Rate**	37.9%	45.0%	36.1%	29.2%	61.3%	47.1%

*Ineligible is a disposition term defined by HEDIS. Ineligible respondents include those who are deceased, had invalid phone number and address, had language barriers, self-reported ineligible member age, or were not currently enrolled in the health plan. Ineligible respondents were determined through both the mail and telephone surveys.

** Adjusted response rate = number of complete surveys/number of eligible respondents. Complete surveys were those for which respondents answered critical questions and completed at least 80% of the core CAHPS questions.

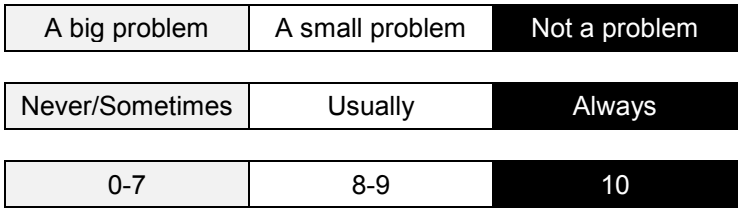
Data Analysis and Presentation

All CAHPS 2001 results were compiled using SAS version 8. The CAHPS SAS analysis program CONTRL21.sas, taken from the CAHPS 2.0 Survey and Reporting Kit, was used in cleaning data, computing all health plan scores, comparison statistics, and case-mix adjustment.

Results are presented for core CAHPS questions and composite-level results. For each question or composite, the number of respondents, the unadjusted percent breakdown of responses, and the adjusted star ratings are presented.

Bar Graphs
Individual question and composite-level results are displayed in the 2001 CAHPS reports. Composite scores are displayed to provide summary information about a set of questions on a particular topic. Bar graphs are displayed for six domains of care and four global ratings, as listed on page 5 of this report.

Response Scales
The CAHPS survey core questions consist of three major response scales: how much of a problem the member had with a particular situation; how often a particular event occurred within their health care; and their rating of personal doctors, specialists, health care, and health plans. The "how much of a problem" scale consisted of three possible responses, while the "how often" and "global rating of care" scales had more than three possible response types. For consistency in reporting and emphasis on positive plan performance, the "how often" and "global rating of care" scales were regrouped and recoded into three responses according to the CAHPS 2.0 Survey and Reporting Kit. Examples of resulting graphs are depicted below:



As the CAHPS Survey and Reporting Kit depicts, combining “never” and “sometimes” results in virtually no loss of information. Results from repeated CAHPS demonstration projects, survey instruments indicate that the “never” response option is seldom selected by respondents. Typically less than 5% of the respondents select the “never” response to questions such as, “How often did doctors or other health providers listen carefully to you?”

Combining the “always” and the “usually” responses would result in significant loss of information. In CAHPS demonstration projects, about 50% of respondents stated that their health care providers “always” listen, explain, and respect their comments. Another 20% stated that their providers “usually” listen, explain, and respect their comments. Combining these categories would reduce the ability to discriminate performance on these items in the CAHPS survey. In other words, important information that consumers can use to examine health plan performance is contained in the top two responses (“always” and “usually”) to the *never/sometimes/usually/always* questions.

Note, in the “Getting Care Without Long Waits” and "How Well Doctors Communicate" composites, two questions are framed in the negative and are therefore grouped differently. For example, a response of "never" to the question "How often did your child wait in the doctor's office more than 15 minutes past your appointment time?" is a positive response rather than a negative response. For the composite scoring and analysis for questions like this, responses were reversed to be compatible with the scoring for other questions (e.g. the “never” response becomes “always”, and "always/usually" are grouped in bar graph results).

Calculating Results
For each survey question per health plan, the following process occurs: a mean numerical response is calculated and raw percentage scores are reported; the resulting mean is then statistically adjusted; and finally, the adjusted means are used to determine star ratings.

First, a numeric value is assigned to each response type as follows:

Response Type	Resulting Recoded Variable
A big problem, Small problem, Not a problem	1, 2, 3 respectively
Never, Sometimes, Usually, Always	1, 1, 2, 3 respectively
0-7, 8-9, 10	1, 2, 3 respectively

Second, a mean numerical response is calculated for each question per health plan (from 1.0 to 3.0), and the percent of respondents scoring 1, 2, or 3 are reported.

Finally, the means scores are adjusted and the statistical significance is evaluated to determine star ratings.

Case-Mix Adjustment for Star Ratings
In general, people who are older, healthier, and/or who have a lower level of education tend to rate their plans better. To prevent unfair comparisons between plans that may have more respondents with these characteristics, the mean responses are adjusted by a statistical procedure, Linear Regression Analysis (covariance adjustment). Linear regression modeling techniques adjusted the means based on three member characteristics: general health status of the child or adult, and educational level and age of the respondent. If data are missing for any of the adjuster variables, then a plan mean is imputed; that is, the plan mean is used for an adjuster variable missing a response. Typically, the overall size of the adjustment from all adjuster variables and the number of missing adjuster variables are both small.

The adjusted plan mean is then compared to the overall mean (average response among all plans) in order to determine the star rating. The star ratings indicate whether a plan's adjusted mean response is statistically different from the overall mean response. Three stars indicates a plan mean is statistically higher than the overall plan mean, two stars indicates a plan is not statistically different than the overall plan mean, while one star indicates a rating lower than the overall plan mean. Note, a plan may have similar raw percentages (bar graphs) but different star ratings because 1) the star ratings are adjusted (but the percentages are not) for characteristics found in the literature to influence results, and 2) the number of responses per plan may vary and contribute different weights to the overall plan average.

Statistical Significance
The bar graphs for each composite and individual survey question display percent breakdowns for survey responses that are not case-mix adjusted. However, for statistical significance testing, case-mix adjusted means are used to compare health plan means to a state aggregate mean.

Significant differences were determined using two statistical tests. First, a global F-test was conducted to determine if any of the adjusted plan means differed significantly from the other plan means in the study. This preliminary test offered some protection against giving plans three stars or one star due to random variation in the sample when there may truly be no meaningful inter-plan differences. If the F-test indicated that there were differences, then t-tests were performed to determine if the mean for each plan was different from the overall mean for the aggregate of plans in the state. P-values less than or equal to 0.05 were considered significant, and therefore one can assume with 95% confidence that the results are accurate.

Ratings
As described above, stars were assigned to each health plan's case-mix adjusted mean to indicate whether the plan's performance was significantly better or worse than the overall mean of participating plans in the state. Plans with means that are statistically better than the state average are noted with

three stars. Plans with means that are statistically worse than the state average are noted with one star. Plans with means not statistically different from the overall state average are noted with two stars.

For statewide populations, such as The Children's Health Insurance Program (CHIP) only unadjusted bar graphs of the percentages are presented. Stars are not displayed because there is no comparison group for these programs. Since comparisons are not made for statewide programs, no adjustment is necessary.

Results
The 2001 CAHPS survey results are presented in final reports as follows:

- Stakeholder Report: 2001 Washington State Medicaid Client Satisfaction Survey Results (for adults and children in Healthy Options); and
- Special Reports: Pregnant Women in Medicaid Managed Care and Fee-for-Service; Children with Special Health Care Needs in Medicaid Title V and Healthy Options Plans.

Limitations and Cautions

The findings in the stakeholder report are subject to some limitations in the survey design, analysis, and interpretation. These limitations should be considered carefully when interpreting or generalizing the findings presented. These limitations include:

Case-mix Adjustment
While data have been adjusted for differences in self-reported general health status and respondent's age and education, it was not possible to adjust for differences in enrollee characteristics that were not measured. These characteristics include income, employment, or others that may not be under the plan's control for delivery of health services.

Representative Population of Children with Special Health Care Needs
Children enrolled in Title V were surveyed as a proxy for children with special health care needs. In addition, screener questions were added to the child survey to identify those children needing special health care. Other than those children enrolled in Title V, special needs criteria were determined by self-reports from only those who responded to the surveys. Therefore, the survey results may not be representative of the entire population of children with special health care needs enrolled in the participating health plans. The experiences of the survey respondent population may be different than that of non-respondents with respect to their health care services and may vary by plan. These aspects should be considered when interpreting the results.

Single Point in Time
The results of this survey provide a snapshot comparison of health plans at a single point in time. These comparisons may not reflect stable patterns of consumer ratings over time.

Causal Inferences
Although the report examines whether enrollees of various plans report differential satisfaction with various aspects of their health care experiences, these differences may not be attributed totally to the plan. (See "Case-Mix Adjustment" above.) This analysis identifies whether enrollees in various types of health plans give different ratings of satisfaction with their plans. The survey was not designed to examine why the differences exist.